

REMARKS

Initially, Applicant would like to thank the Examiner for acknowledging Applicant's claim for foreign priority under 35 U.S.C. §119, as well as receipt of a certified copy of the priority document upon which the claim for foreign priority is based. Additionally, Applicant would like to thank the Examiner for acknowledging consideration of each of the documents listed on Forms PTO-1449 submitted with Information Disclosure Statements filed on September 9, 2005, March 19, 2004 and October 14, 2003.

In the outstanding Official Action, Figure 15 was objected to as lacking designation with a caption such as ---Prior Art---. Additionally, the specification was objected to for an informality at page 13, lines 4-6.

Claims 1-7, 8-13, and 18-21 were rejected under 35 U.S.C. § 103(a) over KUBOTA et al. (U.S. Patent No. 7,023,992) in view of VALENCI et al. (U.S. Patent Application Publication. 2003/0005279) and in view of BLATTER et al. (U.S. Patent No. 5,878,135). Claims 14-16 were rejected under 35 U.S.C. §103(a) over KUBOTA, VALENCI, and BLATTER, and further in view of SWIX et al. (U.S. Patent Application Publication. 2004/0250273). Claim 17 was rejected under 35 U.S.C. §103(a) over KUBOTA, VALENCI, and BLATTER, and further in view of UTSUMI et al. (U.S. Patent No. 6,999,947).

Applicant traverses each of the outstanding objections. In this regard, upon entry of the present amendment, Figure 15 will have been replaced with Replacement Figure 15. Replacement Figure 15 is labeled as "Prior Art". Further, upon entry of the present amendment, the paragraph of the specification at page 13, lines 4-8 will have been

replaced with a replacement paragraph in which the phrase "PSI generator 59" has been replaced with the phrase "PSI generator 61". In view of the attached Replacement Figure 15 and the herein-contained amendment to the specification, reconsideration and withdrawal of each of the outstanding objections is respectfully requested.

Applicant traverses each of the outstanding rejections. In this regard, Applicant would initially like to provide an explanation of the cited teachings of KUBOTA, as well as assumptions made as to the basis of the outstanding rejections and interpretations of KUBOTA, insofar as a complete explanation of the basis of the outstanding rejections and interpretation of KUBOTA was not set forth in the Official Action. If any of the assumptions set forth below are incorrect, Applicant respectfully requests a complete and detailed explanation in the next Official Action as to which specific features of KUBOTA are believed to disclose each and every feature of the claims now pending.

For the sake of clarity, Applicant will refer to the keys in KUBOTA as follows:

work key K_w = first key - W
encrypted work key K_w' = encrypted first key – W'
master key K_m = second key - M
scramble key K_s = third key - S
encrypted scramble key K_s' = encrypted third key – S'

According to KUBOTA, a subscriber management system 2 provides a first key W to a subscriber authorization system 3 (see col. 5, lines 25-30).

The authorization system 3 uses a second key M to generate an encrypted first key W' (see col. 5, lines 31-36). The authorization system 3 transmits the encrypted first key W' to the multiplexer system 8 in an EMM' (entitlement management message) data packet (see col. 5, line 63 to col. 6, line 2). The authorization system 3 generates a third

key S for each program or for each data element contained therein (see col. 6, lines 3-8).

The authorization system 3 transmits the third key to the multiplexer system 8.

The multiplexer system 8 uses the first key W to generate an encrypted third key S' in an encryption circuit 822 (see col. 7, lines 26-30). The multiplexer system 8 sends the encrypted first key W' to an end receiver with the EMM' packet (see col. 5, lines 32-36; col. 8, lines 11-16, and col. 25, lines 30-36). The multiplexer system 8 sends the encrypted third key S' to the end receiver with an ECM (entitlement control message) data packet (see col. 7, lines 26-30; col. 25, lines 36-40).

The encrypted first key W' is decrypted at the end receiver by a first decryption circuit 242 using a prestored second key M (see col. 25, lines 30-36). The decrypted first key W is used to decrypt the encrypted third key S' at the end receiver by a second decryption circuit 243 (see col. 25, lines 36-40), and the decrypted third key S is then used by descramblers 25V, 25A and 25P to decrypt transport stream packets of program data.

For clarity, a table shows the use of each key in KUBOTA as explained above:

Management System 2	Authorization System 3	Multiplexer System 8	End Receiver System
Provides (W)	Receives (W)	Receives (W')	Receives (W')
	Provides (M)		Pre-stores (M)
	Provides (S)	Receives (S)	Receives (S')
	Uses (M) to generate (W')	Uses (W) to generate (S')	Uses stored (M) to decrypt (W')
			Uses decrypted (W) to decrypt (S')

FIG. 10 in KUBOTA discloses the types of data which are to be multiplexed by the multiplexer system 8. That is, KUBOTA contemplates multiplexing encrypted data from the encryption circuit 822, as well as a program association table (PAT) showing a specified program number and its corresponding transport stream packet. Additionally, Applicant will discuss the teachings of KUBOTA relating to the multiplexer system 8 in relation to the encryptor recited in new claim 22, as it is assumed that the Official Action is interpreting the multiplexer system 8 as an encryptor recited in new claim 22.

The Official Action asserts that it would be obvious to produce and multiplex a control graph as recited in claim 22 in view of the teachings of VALENCI, and to produce and multiplex rights information as recited in claim 22 in view of the teachings of BLATTER.

In contrast to the features recited in claim 22, KUBOTA does not disclose, and it would not be obvious to modify KUBOTA to include, at least the following (emphasized) features of claim 22:

A transmission apparatus, comprising: an encryptor that encrypts data and produces first encrypted data; a program-specific information generator that produces program-specific information containing a table denoting the correlation between the first encrypted data and a program number of the first encrypted data; a tool list generator that produces a tool list containing a tool identification indicating a decoding tool for decrypting the first encrypted data; a control graph generator that produces a control graph indicating an instantiated location of the decoding tool in the receiving apparatus; a rights information generator that produces rights information for the first encrypted data; and a multiplexer that multiplexes the first encrypted data, program-

specific information, tool list, control graph, and the rights information.

That is, there would not be any useful purpose in modifying KUBOTA to produce and multiplex a control graph as recited in new claim 22, insofar as the information in KUBOTA can be decrypted by using the pre-stored second key M to decrypt the encrypted first key W', and then using the decrypted first key W' to decrypt the encrypted third key S (see col. 25, lines 25-40), and insofar as both the encrypted first key W' and the encrypted third key S' are sent in multiplexed transport streams.

Further, there would not be any useful purpose in modifying KUBOTA to multiplex the PID table (assuming this is interpreted as the tool list recited in claim 22). Rather, multiplexing/transmitting the PID table would be superfluous as the encrypted third key S' is sent in a multiplexed transport stream so that there is no need to further identify an association between the encrypted third key S' and a PID at the end receiver.

That is, as explained above, KUBOTA does not multiplex a PID table or produce and multiplex a control graph, and there would not be any proper motivation to modify KUBOTA to multiplex a tool list or to produce and multiplex a control graph. Accordingly, new claim 22 is allowable at least for the reasons set forth above.

KUBOTA also does not disclose, and it would not be obvious to modify KUBOTA to include, at least the following (emphasized) features of claim 23:

A transmission apparatus, comprising: an encryptor that encrypts data and produces first encrypted data; a tool list generator that produces a tool list containing a tool identification indicating a decoding tool for decrypting the first encrypted data; a control graph generator that produces a control graph indicating an instantiated location of the decoding tool in the receiving apparatus; a rights information generator

that produces rights information for the first encrypted data; a program-specific information generator that produces program-specific information containing the tool list, the control graph, the rights information, and a table denoting the correlation between the first encrypted data and a program number of the first encrypted data; and a multiplexer that multiplexes the first encrypted data and the program-specific information.

That is, in addition to the above-noted remarks in relation to a control graph generator and a multiplexer (i.e., as discussed with respect to new claim 22), the cited portions of KUBOTA do not disclose that program specific information (PSI) includes a PID table (assuming this is interpreted as the tool list in claim 23) or a control graph as recited in new claim 23. Further, there would be no proper motivation to produce such program-specific information, at least because KUBOTA is directed to including an decryptable encrypted third key S' within a packet stream. Accordingly, new claim 23 is allowable at least for the reasons set forth above.

That is, as described above, there is no proper motivation to modify KUBOTA to include at least the numerous above-noted features of independent claims 22 and 23 which are not disclosed by KUBOTA. Rather, as set forth above, such a modification would complicate KUBOTA and/or render moot numerous of the complicated and intricate teachings set forth therein. Accordingly, any motivation to be derived from KUBOTA would be a motivation not to modify KUBOTA in the manner asserted in the Official Action.

At least for each and all of the reasons set forth above, there is no proper motivation to modify KUBOTA with teachings of VALENCI, BLATTER or any other

document such that the features recited in new claims 22 and 23 would result. Independent claims 29-31 recite features of a receiving apparatus that correspond to various of the above-noted features of the transmission apparatuses recited in independent claims 22-23. Insofar as corresponding or similar features are recited in each of new claims 29-31, each of the independent claims now pending is allowable over the combination of KUBOTA, VALENCI, and BLATTER. Further, each of dependent claims 24-28 and 32-42 is allowable at least for depending, directly or indirectly, from an allowable independent claim, as well as for additional reasons related to their own recitations. Accordingly, reconsideration and withdrawal of each of the outstanding rejections is respectfully requested.

Should there be any questions, any representative of the U.S. Patent and Trademark Office is invited to contact the undersigned at the below-listed telephone number.

Respectfully Submitted,
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